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ABSTRACT

The California Education Summit, which brought together some 300 individuals representing major groups driving California education reform (teachers, principals, superintendents, parents, students, school board members, business leaders, and community members), was called for two reasons: (1) to begin developing a consensus, or game plan for the 1990s, regarding the next steps to upgrade California schools; and (2) to reflect on participants' experience and identify elements that would ensure the success of any forthcoming national efforts. Participants agreed on fundamental goals, beginning with the premise that more students must be educated to higher levels than ever before. At least 25 percent of students entering high school should earn a bachelor's degree, another 25 percent should earn an associate degree from a community college, and at least 40 percent should make a successful school/work transition, thus reducing the dropout rate by 10 percent. To accomplish these goals, more students must read, write, compute, communicate, and think at higher levels. Schools must teach a thinking curriculum, so that students become active learners, develop real understanding of fundamental concepts and ideas, and apply knowledge creatively. The key strategies emerging from group discussions included the following: (1) increasing accountability and improving assessment; (2) enhancing the curriculum; (3) improving high school transitions; (4) improving adult literacy; (5) organizing more effective services for children, youth, and families at risk; (6) restructuring to improve student performance; and (7) improving teacher preparation and recruitment. (MLH)

FINAL REPORT

CALIFORNIA EDUCATION SUMMIT

MEETING THE CHALLENGE

The Schools Respond

CALIFORNIA DEPARTMENT OF EDUCATION
Sacramento, CA 1990

CALIFORNIA EDUCATION SUMMIT:
Meeting the Challenge, the Schools Respond

FINAL REPORT
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Executive Summary

At the national education summit in September 1989, the President and the nation's governors issued a series of challenges to the educational community. To respond to these challenges, some 300 individuals representing the major groups driving California education reform--teachers, principals, superintendents, parents, students, school board members, legislators, business leaders, and community members--met in Sacramento on December 12-13, 1989.

During the 1980s we all worked hard to improve student performance, and our efforts are paying off. By any set of standards, we have made substantial progress in our schools. However, California educators are also acutely aware that we still have a long way to go to prepare our rapidly growing and diverse student body for the increasingly demanding job market and to instill in our students strong democratic and ethical values.

The *California Education Summit: Meeting the Challenge, the Schools Respond* was called for two principal reasons:

* To begin the process of developing a consensus--a game plan for the 1990s--on the next steps we should take in California to upgrade the schools; and

* To reflect on our experience and identify those elements which would increase the chances of success in any forthcoming national efforts.

We started the education summit with fundamental agreement on our goals for a state and a nation. These goals, once controversial and widely debated, are now generally accepted as the foundation of our reform efforts. We began with the premise that more of our students must be educated to higher levels than ever before. For example, at least 25% of those students who initially enter high school should earn a bachelor's degree; another 25% should earn an associate degree from a community college; and at least 40% should make a successful transition from school to work, thus reducing the dropout rate to under 10%.

There was also overall agreement that to reach these goals, more of our students must read, write, compute, communicate, and think at higher levels; and that to reach these higher levels we need to teach a thinking curriculum so that students become active learners, develop real understanding of fundamental concepts and ideas, and apply knowledge creatively. These principles are currently reflected in the California frameworks.

What we addressed at the summit was how best to reach these lofty ideals--what we should keep, what we should build on, and what we should change in assessment and accountability, staff development, team building and reorganization at the school site and district levels, teacher preparation, and strategies to help children and adults at risk.

What implementation strategies should we pursue to further our improvement efforts? The seven groups at the summit were charged with answering that question. Each summit participant was assigned to one of these groups and the subjects addressed reflected those highlighted at the national education summit. The key strategies that emerged from the group discussions included the following:

Increasing Accountability and Improving Assessment

Develop a more comprehensive accountability system, including more substantive information about those students not going on to postsecondary education.

Develop more comprehensive incentive systems to recognize top performance and significant growth, as well as to identify chronic low performance.

Improve staff development for local school fiscal officers, concentrating on development of fiscal policy teams and involving information technology.

Improve local financial management decision-making by expanding the use of information technology, reducing the paperwork burden, and sharing data concerning resource allocation choices.

Eliminate multiple choice tests in favor of performance-based assessment, a type of assessment in which students are called upon to write, make oral presentations, and solve real-world problems.

Develop and use powerful end-of-course examinations, like the Golden State Exam, which drive important improvements in school curricula.

Enhancing the Curriculum

Improve assessment and develop performance standards to get a clear picture of what students know and can do and to set targets for student performance.

Enhance professional development, extending the contracted school year by at least 15 days so that teachers have the time and structure in which to think, plan, and collaborate with their colleagues.

Develop better instructional materials to reflect the best thinking in each discipline.

Restructure the teaching profession, broadening the teacher's role to include peer coaching and mentoring, as well as developing and utilizing teacher-leaders to help implement reforms.

Improving High School Transitions

Provide all students a rigorous, sophisticated core curriculum to obtain necessary skills, knowledge, and values to maximize their options after graduation.

Increase the number of students who enroll in, and earn a bachelor's degree from four-year colleges and universities to 25% of those students who initially enter high school.

Increase the number of students who enroll in, and receive an associate degree from, a community college to at least 25% of the students who initially enter high school.

Increase the number of students who transition to work with skills that enable success to 40% of the students who enter high school.

Reduce the number of entering high school students who drop out from the current 22% to under 10%.

Improving Adult Literacy

Decrease adult illiteracy by 5% per year for each of the next 10 years, so that the illiterate adult population can compete in the work place, understand and function in our democracy, and enrich the quality of their lives.

Forge a bold partnership among key providers and those who need literacy skills to meet future challenges, coordinating regionally all public and private sector resources to meet priority needs.

Provide adequate resources to reduce adult illiteracy, removing current funding restrictions and encouraging the infusion of private sector resources.

Demand federal recognition and support because the level of adult literacy in the United States is a national crisis.

Organizing More Effective Services for Children, Youth, and Families At Risk

Prevent students from becoming at-risk through prenatal care, parenting education, early intervention for infants at risk, preschool programs, and before- and after-school child care.

Involve parents and provide support for the home to help break the cycle of poverty and dependency.

Enhance community collaboration and delivery of comprehensive services, focusing on schools as the hub of services and using mandates, rewards, or penalties to motivate participation.

Coordinate educational programs, especially categorical programs, providing programmatic flexibility where schools and districts demonstrate high levels of student achievement.

Restructuring to Improve Student Performance

Focus restructuring efforts on students, with districts and schools developing a clear vision of what it takes to improve student performance.

Engage in long-range strategic planning.

Involve teachers in restructuring, providing them time to focus their skills, knowledge, and expertise on the task of delivering a rich, thinking curriculum successfully to diverse students.

Increase service orientation, flexibility, and accountability, and relax rules and regulations that impede schools' efforts to organize to improve student performance.

Modify assessment practices, focusing on the new thinking, problem-solving curriculum.

Improving Teacher Preparation and Recruitment

Expand teacher recruitment to target minority individuals, encourage mid-career entrance into teaching, and provide incentives to keep outstanding teachers in the profession.

Improve teacher preparation by enhancing field experience prior to credentialing and upgrading the status of teacher preparation within higher education.

Improve teacher induction, retention, and assessment by creating an organized systematic, statewide process to support new teachers and assess of their competencies.

Enhance professional development, expanding the teacher work year to allow for more staff development, providing teachers opportunities to expand their roles, and restructuring the salary schedule to recognize increases in responsibilities and competence.

Improve administrator credentialing and training to increase emphasis on curriculum and instructional leadership and providing ongoing professional development.

These and other recommendations are discussed in the following seven working group reports. The document also contains State Superintendent of Public Instruction Bill Honig's introductory material which helped set the summit's tone and structure. Finally, this document contains an alphabetical listing of summit participants. *California Education Summit: Background Papers*, a volume to accompany this document, includes the initial background information each working group received, in addition to the keynote address delivered by Dr. Diane Ravitch, Professor of History, Columbia University.

A videotape was made of portions of Superintendent Honig's opening address to the summit participants and the groups' presentations of the final recommendations. Copies of the videotape were supplied to every school and district.

While we have general agreement on the future direction of our educational reform efforts, further progress will depend on educators' creative abilities to adapt these general ideas to the specific realities at their schools and districts. We hope that the materials generated from the summit will spark local discussion and planning regarding the next steps we need to take in our reform movement. Working together we will be able to meet the challenges facing education in the 1990s and beyond.

What Happens After We Set National Performance Goals?

by

Bill Honig
State Superintendent of Public Instruction

Following his national education summit, President Bush was widely hailed for focusing needed attention on the question of educational quality and for breaking new ground in establishing national performance goals. While the response of commentators was favorable, many observers followed up with the key question: *What strategies should we pursue to give us a reasonable shot at reaching those goals?*

The obvious approach would be to implement a comprehensive reform strategy based on those school districts or states which have successfully improved performance and encourage or require that others do what they did. As the President proclaimed, this strategy would involve setting national performance targets for the year 2000.

But a successful approach would also require much more. It would require educators to define specifically the kind of mathematics, science, history, and literature, as well as the reading, writing, speaking, and listening skills students must learn if this nation is to compete internationally. It would necessitate determining the best ways to teach each subject to a diverse student population. It would mean developing better testing to see if students have actually learned this strengthened curriculum, undertaking heavy investment to bring teachers up to speed, and giving educators the necessary technological tools to improve their productivity. Finally, this strategy would provide planning and implementation grants to schools and districts to translate these ideas into reality, making needed structural changes in our schools to move from a rule-driven system to a performance-based one.

Some of these ideas can be achieved by altering policies, some by changing the way schools and districts do business, and some by providing an infusion of developmental capital. But similar comprehensive strategies worked when this nation decided to put an astronaut on the moon, win World War II, and eradicate polio, and there is no reason why they will not work now.

Incredibly, such a commonsense, pragmatic approach has not been taken seriously by this country's intellectual and political leadership. Our leaders are in the grip of a crippling negative conventional wisdom which prevents them from understanding schools and the most obvious strategies to improve them.

The conventional wisdom on American education goes something like this: In 1983 *A Nation at Risk* was published, warning this nation of impending economic and social catastrophe if we did not improve the quality of education and close the gap between American students and students in the rest of the developed world. Since then some noises were made about reforms, states pumped a huge amount of new money into schools, but nothing really happened. Either educators were unwilling or unable to respond effectively. Student performance improved marginally, if at all. Consequently, putting more money into this failed system is a waste. Conclusion: Blow up the public school system and start over; design reforms on the margins, such as choice or merit schools; or ignore the problem as too intractable.

But what if the conventional wisdom is dead wrong, not about the gap between our students' performance and the rest of the world, but about the ability of our public schools to respond to this challenge effectively? What if many educators did implement the ideas of *A Nation at Risk*, with the

result that student performance nationally over the past six years has improved steadily and significantly? What if, in some states and school districts, progress has been much greater than during the last spurt of educational improvement in the late 1950s and early 1960s after Sputnik? Further, what if educators are just as willing as the business community and politicians to commit to radical changes in how schools operate to quicken the pace of reform? Finally, what if supporting the right mix of educational vision; performance standards; and investments in teacher training, technology, and team building would produce further significant improvements--a case of targeting developmental capital to a willing and able cadre of educational reformers?

Obviously, if the conventional wisdom is flawed and hinders us from building on the successful efforts of the past six years, we may miss a once-in-a-lifetime opportunity to create a world-class school system. By grasping at more superficial strategies, we may miss the chance to accelerate the pace of those reforms already producing results. I happen to support public school choice, merit schools, and alternative certification but to think these ideas, by themselves, will transform American education is a pipe dream.

IMPRESSIVE GAINS POSTED

Well, surprise! The conventional wisdom is completely at odds with the facts. Keep an open mind and consider the following:

In California, from 1983 to 1988, 12th grade test scores improved *one whole grade equivalent* in mathematics and *one-half grade* in reading. For three-quarters of a million junior high school students, the gains were even more impressive. We devised new, rigorous 8th grade tests in science, history, writing, mathematics, and reading. In just *three* years, from 1986 to 1989, 8th graders have improved an average of *one-half grade* for all subjects. These results mean that California's 7th and 8th graders grew two and one-half years versus the normal two years -- *a 25% increase in performance* or 8% per year. This increase is a better record than the much heralded 4% per year manufacturing gains of the past few years. Since real per pupil expenditures were approximately flat during the past three years, school productivity gains easily surpassed the annual growth posted by industry.

Another way of gauging the magnitude of these improvements is to consider that the average Japanese 8th grader was approximately two years ahead of the American 8th grader in mathematics in 1986. We shaved 25% off that gap in three years. One decade more of progress at this rate and we will have caught up with the Japanese, assuming a static target, which is a reasonable assumption since most analysts believe that the Japanese will have problems sustaining current performance levels. For those skeptical of the accuracy of California's test data, California uses a matrix sample and effective test security. (Dr. John Cannell, a well-known critic of testing, points to California as an example of how to conduct a fair assessment.)

A second impressive statistic is the number of average students who now take harder courses compared to five years ago. In California, out of a senior class of 250,000, 50,000 additional seniors now take a third year of science; and over 40,000 more take a fourth year of English, and a similar number a third year of math.

For college-bound students comparable improvements have occurred. The pool of seniors from which we draw most of our professional and business talent--those who score above 450 on the verbal portion of the Scholastic Aptitude Test and those who score above 500 on the mathematics portion--has grown *28% in verbal and 32% in mathematics* from 1983 to 1988 or better than 5% per year. Fifty thousand seniors out of 250,000 now reach these levels. The pool scoring above 600 on

the verbal or 600 on the mathematics tests has done even better--the mathematics pool has increased 42% and the verbal pool by 36%.

You may wonder why you keep hearing that SAT scores are stalled. When more students take the test, test takers represent a less elite group and average scores drop. In the past five years, an additional 13% have taken this test; measuring the pool of those who score above specific performance levels neutralizes the penalty for encouraging more students to take the test.

Furthermore, in California these gains have been made despite a pronounced demographic shift in test takers. During the past five years, ethnic minority test takers have increased from 35% of the total to 45% (minorities comprise 25% of test takers nationally and these numbers are also growing). Since black students score 200 combined reading and mathematics points below white students, Hispanic students 150 points below, and Asian-American students 50 points below, more minorities taking the test will usually decrease scores. This phenomenon results in the seemingly paradoxical situation which occurred in California this year: combined scores went down two points but *each major ethnic group's scores went up*.

In this state, blacks, Asian-Americans, Hispanics, and whites comprise 97% of all SAT takers. Last year, scores for black students increased six points, Asian-Americans and whites went up five points, and Hispanics went up two points. Since 1984 black students' scores are up 16 points, Asian-American and white students' scores grew 16 points, and Hispanic students' scores expanded 12 points, while the state average increased only nine points.

There are other good signs for college-bound students. The number of Advanced Placement courses, those rigorous classes made famous in the movie *Stand and Deliver*, taken *and passed* during the past five years has more than *doubled* to 52,000 out of a class of 250,000 seniors. Finally, the number of students who complete the *A-F* course requirements for admission to the University of California has grown.

At the other end of the student spectrum in California, the dropout rate has shrunk 15% in the past three years from 26% to 22%.

These improvements have occurred even though California schools have had to (1) accommodate an annual enrollment growth of 140,000 students a year--almost as great as the growth that occurred during the baby boom after the second world war and (2) deal with deteriorating social conditions. The number of youngsters living in poverty has doubled since 1979 in our state to 1.8 million during the 1980s; similarly, the number of students who did not speak English as a primary language and who are still classified as limited-English-proficient doubled to one out of six.

Nor are these good-news results limited to California. Nationwide, a recent U.S. Department of Education report found that the pool of dropouts has shrunk by one-third since 1979 and that black dropout rates are virtually comparable to whites. Furthermore, nearly one-half of the dropouts eventually graduated or received a graduation equivalent.

Nationally, the talent pool of college-bound students who scored above 450 on the verbal or 500 on the mathematics portion of the SAT grew nearly 15% in five years; scores above 600 have grown 23% in both verbal and mathematics. Some commentators argue that even though there has been some improvement in the past six years, combined verbal and mathematics scores are still 77 points below what they were in 1963. Actually, one can make a good argument that schools are performing just about the way they did in 1963. In that year only 16% of the graduating class took the test; in 1989, 40% did. According to recent research on adjusting SAT scores for the percentage of students taking the test, a 1% increase in test takers will lower combined scores two points. Thus, two-thirds of the

77 point gap is a result of a significantly greater percentage of test takers. The remainder is more than accounted for by demographic changes in the test takers. As confirmation, when the PSAT (a shorter version of SAT) was given to a representative sample of 11th graders in 1960, 1966, 1974 and 1983, verbal and mathematics scores were stable. Of course, being where we were in 1963 is not good enough for the realities of the 1990s.

Further evidence of improvement for the college-bound is that Advanced Placement courses taken have nearly doubled since 1982. Recent reports have also shown that nationwide college-going rates have increased to an all-time high of 59% up from 51% in 1982. The number of youngsters taking the more demanding curriculum, suggested by *A Nation at Risk* (i.e., four years of English; three years of social studies, science, and mathematics; and two years of foreign languages) has more than doubled between 1982 to 1987 from 13% to 29% of high school graduates. In science, the number of graduates taking chemistry grew 45% to nearly 1 out of 2 students, and the number taking physics expanded 44% to 1 out of 5 students.

On the achievement front, the National Association of Educational Progress (NAEP) found that in 1988 virtually 100% of 17-year-olds reached the two basic reading levels. NAEP also found that the number of 17-year-olds who did *not* reach the third or intermediate level declined 27% from 1980 to 1988 to only 14% of students. The number of students who read at an "adept" level necessary for advanced technological jobs (the fourth or next-to-highest level) increased from 38.5% in 1980 to 41.8% in 1988. Problems appeared at the advanced level in reading, for 13-year-olds, and in writing.

In mathematics, virtually 100% of 17-year-olds reached the first three levels, and the number able to handle moderately complex problems (the fourth level) grew from 48.3% in 1982 to 58.7% in 1988--a 22% increase. In science, from 1982 to 1988, the number of 17-year-old students who did not reach the third ability level shrunk from 24% to 14%, and those who reached the fourth level grew from 37.5% to 44.6%, or a 19% boost. Students who reached top levels in mathematics grew 20% and in science grew 14%, although only a few students reached these goals (6.5% in mathematics and 8.2% in science). These results were achieved even though the number of students still in school grew by 9% as dropout rates fell.

Some individual states which have tested youngsters during the past years confirm the same pattern of significant growth in student achievement. For example, Iowa has tested students since the 1940s. At the elementary levels students have recovered all the losses since 1963 and are now substantially above those levels. Eleventh graders have increased their performance during the past years and are now scoring equal to students in 1963. A recent article by John Bishop of Cornell University in the March 1989 *American Economics Review* produced evidence to demonstrate that the recent rate of growth in student achievement is as great or greater now than during the last great spurt of growth after Sputnik.

Michigan instituted a proficiency performance test in reading for fourth graders in 1975. Originally 38% passed. Last year 87% passed. A test given in Indiana to 11th graders in 1986 under the exact conditions that the test was given in 1944 found students scoring at the same level in the 11th grade even though students in 1986 were on the average one year younger. In other words students actually improved a full grade level. Given the substantially higher dropout rate in 1944, these results are even more impressive.

STRATEGIES THAT WORK

Of course, the crucial question should be *what caused these gains?* California's experience may shed some light on what it takes for a successful reform strategy. Some elements of our strategy are

being addressed nationally, but what we did was much more sophisticated and related to the reality of schools and teachers than what is currently under discussion as reform.

First and foremost, a reform strategy must be comprehensive and spring from what needs to be learned and how best to teach it. We worked hard in California to obtain agreement that our youth needed a more demanding curriculum. The ability to abstract, conceptualize, and problem solve is becoming increasingly important--even for traditionally blue-collar jobs. Production line work now demands statistical analysis and high level team work and communication skills. The disciplines of mathematics, science, writing, history, literature, health, and fine arts become the best vehicles to teach these higher level skills and applied academics (problem solving); and cooperative learning becomes crucial in reinforcing these abilities. The same instructional strategies apply to preparing thinking citizens who understand democracy and its ways and possess the wisdom and character to capitalize on the freedom given them.

It took years of heavy lobbying but this philosophy, which once was an extremist position, has now become widely accepted among educators. Our slogan: all students can learn. Our meaning: virtually all children can learn to think, understand democracy and the culture around them, and become prepared for the changing job market. Our children can learn to be smart and learn to be good.

Second, using experts in each field, we defined the kind of curriculum and instruction necessary to reach these higher goals--in reading, literature, writing, language skills, science, mathematics, history, foreign language, vocational education, health, and physical education. We obtained consensus by involving large numbers of teachers and educators *without watering down the bite of reform.* These agreements were embodied in our state framework and curricular guides which are widely available *and used.* These guidelines are sufficiently precise to have a definite point of view (e.g., reading instruction should include literature books, and social studies should be history-based and idea-driven), but open enough for teachers to figure out how best to organize instruction. The documents are also consistent with national reform efforts in each discipline, and many have won nationwide acclaim.

Third, we changed our state tests to reflect this more demanding curriculum. We now test in science and history, evaluate writing samples, and assess for higher levels of understanding in reading and mathematics. We also instituted an accountability system which set specific targets for the state and gave each school and district information on how it was doing in reaching those targets. We publicize the results annually. Over 700 of our best schools have received Distinguished School Awards given at a prestigious luncheon sponsored by some of education's business friends. Interestingly, only two-thirds of California schools have made progress; one-third are doing no better than five years ago. (No, it is not just suburban schools which have improved. Winners and losers are distributed among rural, urban, and suburban schools.)

Fourth, we developed specific implementation strategies in each curricular area to get the word out on what the changes were and why. For example, in shifting to a more literature-based English curriculum, we developed comprehensive training through the UCLA Literature Project and numerous documents to support our efforts.

Fifth, and crucial to the success of the whole enterprise, a tremendous effort was made to get local school superintendents and board members to buy into the vision and strategies of reform and, most importantly, devote substantial dollars during tight fiscal times to staff development. Many in the corporate world are now saying that investment in their employees is the most critical factor in meeting worldwide competition and continuing productivity growth. What technology introduction was to the 1970s and 1980s, staff development will be to the 1990s. Can you imagine IBM or Apple

attempting to sell a new product without training its salespeople or the Air Force allowing pilots to fly without heavy investments in training? The concept seems absurd. Yet, in many political circles the obvious reform strategy of heavy investment in teachers to acquaint them with the improvements in each discipline smacks of a boondoggle. The hard reality is that without that investment, large scale improvements will not occur.

Currently, schools devote pathetically few resources to staff development, and education remains one of the lowest capitalized enterprises in the country. In California we designed mathematics, history, writing, literature, science, and fine arts training consistent with our revamped curriculum. The training, which included specific courses and follow-through back to the school level, has had a powerful effect. Unfortunately, because of low levels of funding only a small fraction of teachers has been able to participate. Sadly, we turn away thousands of eager teachers each year from literature, history, or mathematics summer training because of limited funds. We have made a modest start in California in investing in our teachers. Just imagine what would happen if we were able to involve our whole teacher corps.

Sixth, California spends nearly $300 million a year for site planning and implementation through our School Improvement Program. This effort provides resources for teachers and principals, with the community's advice, to take the general reform ideas and devise specific strategies for that particular school.

Seventh, we designed and implemented specific strategies aimed at improving the quality of instructional materials (four years ago California rejected all mathematics books), enhancing leadership of principals and superintendents (we are training over 3,000 principals in how to implement the vision of reform in their schools), and involving parents (we entered a partnership with the Quality Education Project which has trained nearly 200,000 parents and their children's teachers in the state's lowest socioeconomic areas about how to cooperate in helping their children learn). We formed a strong working relationship with the business community, higher education, and law enforcement; and we have initiated hundreds of partnership programs. Finally, we are revamping each special program, such as vocational education, bilingual education, and programs for the children at risk of failing, to assure that these programs will help accomplish the overall reform objectives. We also embarked on a multi-million dollar program of technology introduction.

How the cumulative effect of these initiatives can produce impressive gains can be seen clearly in our three-year experience with junior high reform. In 1985, when it was apparent that 8th grade performance was lagging, we produced a report, *Caught in the Middle*, which called for strengthening academics along the lines suggested in the California frameworks, increasing individual attention to students, and making organizational changes at the school. This report was enthusiastically endorsed by educators who knew we were in trouble at those grades. Subsequent surveys found almost every junior high or middle school in the state attempting to implement the report's recommendations.

To further these efforts, a grant from the Carnegie Corporation established a support network of 100 middle grade schools. We also obtained from the legislature and governor $5 million for planning grants of $30 per student for one-third of California's junior high schools (this year every junior high will receive funds). We strengthened our testing program to cover writing, science, history, problem solving in mathematics, and more demanding reading comprehension. Local districts devoted substantial resources to middle grade improvement, especially in staff development; and alignment of vision, testing, training, and accountability.

The comprehensive approach worked better than any of us had expected--a 25% increase in achievement across the board in just three years. The critical elements of such massive change should provide a serviceable blueprint for other efforts: a vision of quality specifically defined;

assessment procedures which reinforce that vision; activities to allow people at schools to work through those ideas and plan site-tailored responses and organizational changes; massive investments in staff development; and school and district alignment of curriculum, assessment, and training in a coordinated effort.

NATIONAL POLICY IMPLICATIONS

If the conventional wisdom is way off base and a significant cadre of educators not only is actually willing and able to improve the schools but also has started to do so, what are the national policy implications? First of all, President Bush can legitimize the successful strategies that many states and districts have used to produce results. This endorsement will provide credibility and accelerate the pace of reform.

Secondly, the key to success in improving our schools is for our national leaders to invest selectively in those strategies with a high potential of leveraging the whole system and enhancing existing efforts to upgrade education. As usual the national discussion has been confusing rather than enlightening. The issue should not be reforms versus more money, as if spending more money is a reform strategy or initiating high-payoff strategies can be done for free. Some of the educational reforms which worked, such as initiating accountability systems or changing the structural nature of schools, did not require extra funds or required only minimal amounts. But some essential ingredients of reform did necessitate additional capital. Thus, the issue should be: what can the nation buy with additional investments and how much return can we expect for those expenditures?

There still exists widespread misunderstanding about how to view federal spending. Some spending is pure expenditure determined by political clout--transfers from one group of taxpayers to another, such as tobacco subsidies, food stamp payments, or behind-the-scenes tax deductions inserted in tax legislation. Some appropriations are in the nature of investments, such as health research, Head Start, or road building. These funds are for the good of all and are generally given short shrift. Some dollars could be aimed at improving whole public or private systems and are in the nature of developmental capital. Nobody has even given these monies a name; the business community calls this type of expenditure "strategic investments" and that is what schools need: selected, high-payoff investments which promise to leverage the whole system.

What follows are descriptions of the highest payoff targets of opportunity: goal setting and strengthened assessment, staff development, development of technology, restructuring schools, parent and business partnerships, and completing the equity agenda.

Set Goals and Strengthen Assessment

The participants at the President's education summit wisely committed to establishing national goals, but this reform strategy needs fleshing out. Performance standards should include increasing the number of seniors who can read at a technologically adept level from 42% to 60%, use numbers to solve moderately complex problems from 51% to 75%, and write an adequate piece of persuasive writing from 27% to 50% based on literacy, mathematics, and writing scales developed by the National Assessment of Educational Progress (NAEP). Other targets should include increasing the number of students who attend college and lowering the dropout rate to 10%.

Setting performance standards, however, is only the first step. National goals must be brought home to each school, district, and state. This task can be accomplished by translating the overall target to annual terms (to go from 42% to 60% in 10 years is about a 2% improvement a year as a school, district, and state goal). If a typical high school has 300 seniors, 120 of whom are at the adept level,

the school must educate another six students a year as its share to reach these national goals. Results could be widely publicized and recognition given for being on target.

To produce these target numbers for individual schools, the U.S. Department of Education or the NAEP must either equate state tests to the NAEP scales, expand the NAEP samples to every school, or embed NAEP items in state and local tests. These changes require some funds and, in the case of changing from sampling to population testing, a legislative amendment.

In addition, one of the most powerful levers for educational improvement would be to change national and local assessments from mainly multiple choice, factual recall questions to more essay, problem solving, and open-ended items. Local assessments should focus more on achievements in the disciplines instead of only on a narrow range of basic skills. These kinds of tests are used in every other country and are more in line with real world performance and what teachers should be doing in the classroom. Some developmental funds will be required. Performance assessment costs more than current assessment, but the expenditure is well worth it since performance assessment drives instruction in the right direction.

Invest Sufficient Capital in Staff Development

Many businesses invest significantly in human resource development, but education training budgets have been skimpy and training strategies outmoded. We need to make a limited investment of funds to:

* *Train our existing teachers to teach a more sophisticated curriculum.*

Educators have revamped what we should be teaching in mathematics, history, writing, literature, and science. We know more about how to teach sophisticated subjects to a diverse student body. Crucial to success is a teacher who knows the material cold. To teach *Math A*, a course designed to teach sophisticated mathematics to the average junior high school or high school student, teachers have to know as much mathematics as if they were teaching Advanced Placement courses for honor students. Similarly, to make history come alive for our diverse student body or to transmit the key ideas of democracy, teachers must understand the central concepts and lore of history. To get average students to wrestle with the sophisticated ethical, political and personal issues encountered in literature, teachers must have not only read but also thought about the book and effectively tailored the author's ideas for classroom discussion.

In California, working with our best teachers and professors, we have designed powerful training strategies in the subject-matter disciplines. Unfortunately, only a lucky few of our teachers have been able to participate. We also need to incorporate more productive training techniques and technologies similar to those used by our major corporations and other government agencies.

* *Improve recruiting, preparing, inducting and certifying teachers.*

We will need two million new teachers by 1999; no strategy will improve our schools' performance more than attracting and retaining top-flight teachers. In 1984, only 45% of teachers said they would advise a young person to pursue a career in teaching; today two-thirds say they would. The National Board of Professional Teaching Standards will provide voluntary teacher certification, and a national teachers corps would encourage talented individuals to enter the profession.

* *Provide leadership training for principals.*

Only limited resources are currently allocated to recruit, select, and train principals, who are the key to a good school.

* *Improve technical assistance to school districts.*

The best schools are in districts which have effective site support; yet district effectiveness training is still in its infancy.

Develop and Incorporate Technology

The technology will soon exist to give teachers state-of-the-art curriculum support. We need a massive software and training effort to assist instructors. Compared to business, educators use technology at a very low level. According to the federal Office of Technology Assessment, in 1985 there was only $1,000 of capital behind each worker in K-12 education. This figure is well below the average of $50,000 per employee in the general economy and between $7,000 to $20,000 for labor-intensive service industries. Because we are asking teachers to teach a more sophisticated curriculum, we need to provide high-quality software that draws upon the nation's best minds to supplement regular classroom instruction. For example, we can provide science software that presents the highest quality science experiments for elementary school classrooms. This massive software development project is ideally undertaken at the federal level; although it will take an initial investment of funds, it can pay huge dividends.

Restructure Schools

We should unleash educators' talent to tackle quality issues and improve student performance, and teachers should participate in creating successful learning environments. Currently, most teachers work in isolation. Over-regulation, principal and teacher attitudes, and lack of training and time prevent faculties from organizing schoolwide improvements. We must agree on standards and how to measure them; then we must move out of the schools' way to allow teachers and principals to do their jobs. We should study communities that are restructuring, encourage districts to replicate successful projects, and provide developmental grants that foster team building.

Encourage Parent and Business Partnerships

If parents assure that their children do their homework, stay on top of their children's performance, and read to their children, student attitudes and performance will soar dramatically. Effective parent involvement programs have been developed which cost only $10 to $15 per child.

There have been thousands of business-school partnerships, but the most promising ones attempt to change the incentive structure within a high school. At present, the average youngster who graduates from high school needs only a diploma. Businesses do not ask for grades or give additional pay or faster employment tracks to students for higher performance in high schools. Businesses may test for hiring, but their criteria are not clear to schools, and schools do not incorporate into the educational program the knowledge of where students stand in relation to those expectations. Consequently, most students not going to college do not work that hard in school. Just think of the change if students knew their grades and effort counted. Businesses could agree to establish common performance standards and allow schools to assess for them. Companies could rely on teacher judgment of quality the way university admissions officers do (this is done in most other countries). Schools could make achievement information available and build in early counseling for students on what it takes to get hired and receive higher pay, and how far they have to go to reach hiring

standards. Then the school becomes its students' partner to get more of them to performance levels which pay off. Small developmental grants could encourage this type of partnership, and this strategy could be incorporated in federal training policy and legislation.

Similar approaches can be initiated with community colleges by together setting standards for entry into specific careers and building these standards into educational programs for youngsters early in their high school careers. The new vocational education legislation renewal provides some small grants for "2 plus 2" programs (articulating the last two years of high school and the two years of community college aiming at a technical degree or its equivalent).

Complete the Equity Agenda

We should fully fund programs for at-risk children and youth; and expand successful programs which prevent later failure, such as prenatal and neonatal health care, preschool, and coordinated family services.

MODEL PROGRAMS

A perfect example of a successful program made possible by a small initial investment that incorporates every critical component of our effective reform strategies is *Project 2000* in the Kern Union High School District in Bakersfield, California. Ford Motor Company and several other corporations are putting up the initial capital, $400 per student (approximately 10% of the state's annual per pupil expenditure) for 100 students each at four high schools.

The project concentrates on the average child, encouraging that student to take more, harder academic courses and go to college. Students and parents must commit to the project. A team of four teachers (English, science, mathematics, and history) at each school plans the curriculum and organizational changes, with the principal's participation; and stays together during the school year with the 100 students. Teachers have common preparation periods. Each school receives a classroom of Macintosh computers, and the program stresses word processing and writing for the freshmen. Students are provided role models and heavy counseling support. Substantial funds are provided for staff development, and teachers tackle the problems of how to make complicated subjects accessible to the average student.

Similar projects, such as *AVID* in San Diego, have doubled or tripled the college-going rates of minority youth and completely transformed their schools' atmosphere by changing the attitude of many previously apathetic students. The same strategy has worked for potential dropouts in the California Partnership Academies program, which has enjoyed substantial success in increasing graduation rates and community college attendance.

As a final example of what we could do if we reached agreement on a few comprehensive reform strategies, let us look at mathematics achievement. The participants at the President's summit established a goal of catching up with the rest of the world in mathematics and science. Educators agree with that goal. In fact, we now know exactly where we go wrong in mathematics instruction and there is a consensus on what to do about it. The National Council of Teachers of Mathematics has issued a new set of standards; the University of Chicago has figured out how to teach these complicated standards to the average child; and a major textbook publisher has incorporated these ideas in new materials. Eighth graders who have used these books have grown *four* grade levels in one year. The University of Chicago has analyzed international textbooks and has determined exactly where we fall short. We waste one-half year in second grade by delaying introduction of some topics; we review too much at one fourth grade; and we flounder in junior high school by assigning

too much review and failing to cover measurement and applied problem-solving. By the 8th grade, our students are two years behind where they should be.

We have initiated a university-sponsored California Mathematics Project which has designed a promising training network and delivered effective training for teams of teachers in successful ideas, methods, and materials. So far only 5% of our teachers have been reached. We are ready to go statewide if given the green light. New Jersey's PRISMS Project has initiated a similar strategy. If our political leaders want to improve mathematics instruction in this country, we have already devised the curriculum and implementation strategies. What we need is a modest infusion of investment capital for significant training and site-implementation of these plans.

FUNDING

Currently, we spend approximately $195 billion annually on public schools. Twelve billion dollars of this amount comes from the federal budget (1% of the federal budget). If we took just 5% of the $195 billion, $10 billion a year, and invested it in the right activities for five years, we could substantially improve our schools' productivity AND affect the quality of life and future well-being of our country. A return worth hundreds of billions a year is not a bad payoff for a $10 billion a year investment.

Some argue that we already spend a higher percentage of our gross national product on education than other countries and that we can fund any needed improvements by making choices within current expenditures. As with other tenets of the conventional wisdom, these arguments are fallacious. The U.S. does *not* spend more of its GNP on its primary and secondary education than other industrial countries. It spends less. This year, this country will spend an estimated $353 billion on public and private education, K-12 and postsecondary, or about 7% of its GNP. Of that, we will spend $212 billion or a little more than 4% of the GNP on primary and secondary education, including operating and capital expenditures. Ninety one percent, or $195 billion, is allocated to public K-12 education and approximately 9%, or about $17 billion, to private K-12 schools. The remaining $141 billion, or a little less than 3% of the GNP, is spent on colleges and universities, with approximately $93 billion going for public colleges and $49 billion for private colleges.

The most recent U.S. Department of Education publication, the 1988 *Digest of American Education*, shows that the following countries devoted a higher percentage of their GNP to all levels of public education than the U.S. figure of 5.5%: Canada (7.7%); Italy and Japan (5.7%); Norway (7.0%); Sweden (8.0%); and the USSR (6.6%). Since we devote more resources to colleges than other countries, we place even lower in rank for elementary and secondary education. A recent report of the Economic Policy Institute confirms that the United States ranks 14th out of 16 developed countries in the percentage of GNP devoted to preschool to 12th grade education.

Historically, our priority for K-12 schools has fallen drastically. Currently we spend 4.1% of our GNP for public and private K-12 education; in 1970 we spent 4.7%. The .6% decline, even after adjusting for a 10% drop in student enrollment, would total $10 billion additional a year, more than enough to fund needed reforms *if we were willing to treat our children the same in 1990 as we did in 1970.*

Of course, the whole line of reasoning is specious anyway. If by spending an extra $10 billion you could get five to six times the investment back in improved productivity, comparative percentages of GNP become irrelevant.

The second canard, widely believed but easily disproved, is the charge made by former Education Secretary Bill Bennett that the education *blob* has siphoned off the bulk of the new money for schools and prevented resources from reaching the classroom. The facts: K-12 education is leaner than

almost every other public and private enterprise in this country. In California, we initiated cost accounting measures to determine if the system was over-administered and to search for targets for improved productivity. Nationally renowned leverage buyout experts who advised us stated that we developed more accurate accounting data than most of the companies they investigated.

We allocated every expenditure and person in the state school system to a hypothetical average school of 600 students and 52 employees, spending over $2 million. We found only two and one-half administrators per school, i.e., a supervisory ratio of 20 to 1, lower than every industry except funeral parlors. We found that 59% of all money is spent in the classroom for teachers, aides, and books; another 4% is spent for pupil support, such as librarians, counselors, or special education resource teachers; 19% is used for transporting children, serving meals, and managing property--all at considerably lower rates than comparable services in the private sector; 7% is allocated for site management of one principal, two-tenths of a vice-principal, and two and one-half secretary-clerks per school; 5% is for instructional support, such as science and mathematics specialists, library aides or curriculum supervisors; and finally 6% is spent for general administration which includes every superintendent, assistant superintendent, budget officer, central office secretary, personnel clerk, and every expenditure for insurance, legal services, governance, collective bargaining, and travel.

Moreover, since 1983 after an infusion of reform dollars into the schools, the system is even leaner. There are fewer employees and administrators per thousand students now. A year-long study of the administration of California schools for the Commission on Public School Administration and Leadership concluded that education already has the type of flat management that American industry is trying to emulate. (*How* school administrators manage is a different story.) Because we are lean does not mean that some districts do not have too many administrators; that New York City principals should keep building tenure; that some educational bureaucrats only know how to say no; or that some local teacher union does not care a fig for reform. But the charge that the problem with American education is that the money is not getting to the classroom is ridiculous.

CONCLUSION

The advice educators should be giving our national leaders is clear. We are willing to be held accountable. We are proud of what we have accomplished so far. Yet we know we have much further to go, especially in the areas of teaching a sophisticated curriculum to average and at-risk youngsters, initiating broader-based testing instead of relying solely on multiple choice, and giving teachers and principals more authority and autonomy while building in consequences for good or bad performance.

We are willing to join forces with all major groups in a massive effort to upgrade the quality of education. We are painfully aware that American youngsters do not measure up to student achievement levels in other countries, and we understand that this country is vulnerable if we do not prepare many more of our youngsters to higher levels of performance. Our plea to our leaders is to be intelligent enough to make an honest appraisal of what has occurred in our schools since the reform movement was launched. Give us a modicum of respect for what we have accomplished so far and initiate proposals which build on and enhance the effort already made. We know that not every school, district, or even state is participating in the educational reform movement. But there does exist a widespread cadre of educators who are willing to work cooperatively and implement further reforms which, in ten years, will transform our nation's schools into the world-class system our children deserve.

Workshop Recommendations

Increasing Accountability and Improving Assessment

Programmatic Accountability

The changing needs of business, the increased linguistic diversity of students, and the difficulties faced by disadvantaged students pose complex challenges for our schools. California's accountability program is one component of a comprehensive school reform effort designed to meet these challenges. When indicators of school performance are used in a purposeful, integrated, and comprehensive accountability program, they function as useful instruments for implementing and guiding educational reforms.

Develop a more comprenensive accountability system:

This system would provide information on all aspects of reform and focus on all students, including those who are bound for the work force, the community colleges, and the four-year colleges and universities, as well as those who drop out. Gaps in the accountability program raise the risk that some group of students will be left behind or that some aspect of schooling will be deficient. The needs of business and industry are undergoing rapid development. The population of school children is expanding rapidly and is becoming more diverse ethnically and linguistically. To meet these challenges and to succeed in providing all children with high-quality education, schools need a comprehensive accountability system to help in the planning and implementation of reforms.

Develop more comprehensive incentive systems:

These incentives should recognize schools that have met goals and standards and encourage improved performance by schools that chronically fail to meet goals and standards. Recognition for meeting educational goals is a potent mechanism for encouraging improved or high-level performance. It is also important to recognize that there are still some schools whose students are performing at unacceptably low levels, or who drop out. There are strong economic and moral reasons to help such schools provide high-quality educational opportunities for all students. Appropriate incentives and assistance for these schools will encourage reform and improvement.

Revise Program Quality Review and accreditation:

There should be increased focus on outcome measures and a collaborative process in which staff review and analyze student work, apply statewide performance standards, and propose program strategies.

Fiscal Accountability

A strong fiscal accountability framework is a major component of school accountability generally and an integral part of our overall reform effort. Proposition 98[1], over time, will help provide the investment resources for needed reforms. To ensure the best use of those resources, local fiscal management must continue to improve.

Systematic improvement of fiscal accountability has been under way for the past several years. Financial reporting at all levels is substantially better. Financially troubled school districts are now more readily identified, and mechanisms are in place for dealing fairly and effectively in restoring the districts to financial health. Future efforts can now focus primarily on improving financial management in all districts, not just those in financial jeopardy.

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[1] Passed by California voters in November 1988, Proposition 98 provides a minimum annual funding guarantee for public schools and community colleges based on (1) growth in total state general fund revenues and (2) prior-year state and local allocations to the kindergarten through grade 14 sector, adjusted for enrollment and inflation.

Improve staff development for local school fiscal officers:

* Continue to emphasize creating and implementing fiscal accountability staff development for board members, superintendents, chief business officials, business services staffs, and site-level administrators when appropriate.

* Encourage development of fiscal policy teams (i.e., board members, superintendent, and chief business official) for local fiscal problem solving. The team approach has proven very successful in helping districts address budget development and long-range financial planning. This type of staff development should be expanded to cover new topics.

* Clearly identify and address specific responsibilities of each member of the fiscal policy team through staff development.

* Tailor the content and delivery of staff development to meet the special needs of small, rural school districts.

* Create micro-computer tutorials for self-paced staff development.

* Expand use of teleconferences and videotapes which have proven effective tools for staff development.

* Present fiscal accountability topics as part of every major conference held by key statewide organizations of school officials.

Improve financial management decision-making at the local level:

* Use micro-computer software to ease the burden of preparing fiscal reports required by the state and to improve internal operations. Self-paced tutorials should be available to accompany the software.

* Examine financial reporting for small school districts comprehensively to find ways of reducing the time and effort required to produce reports. Among the issues to be examined include the role of county offices of education, the value of *regional data pools* for small districts, and identification of new ways to promote consolidation and unification among small districts.

* Develop a set of accounting and data collection *specifications* to provide more uniform and accurate information for local and state-level policy makers. Over time, the specifications would form the basis for a more extensive common core of accounting data among all districts and county offices of education to be implemented systematically, given appropriate legislative authorization and funding.

* Provide local policy makers with management information derived from existing data sources (e.g., California Basic Educational Data System) reflecting resource allocation choices.

Increase public awareness of the school facilities crisis:

Minimum standards for school facilities, reflecting educational needs, should be developed. The standards could be applied on a district-by-district basis to determine the nature and extent of the school facilities crisis. With that information, the problem can be more clearly articulated to the public both at the state and local levels.

Disclose the budget impact of collective bargaining agreements:

The current and future budget impact of all collective bargaining agreements should be fully disclosed to the public.

Recruit and train chief business officials:

A comprehensive effort should be made to expand the pool of people well qualified to become chief business officials (CBOs), because over the next decade, 53% of the current chief business officials are projected to reach retirement age. Efforts should include providing mentoring programs, encouraging qualified individuals in other fields to become CBOs, fostering the development of university level programs in school business, and identifying the key skills needed to succeed as a CBO. Moreover, CBOs, both now and in the future, need to be *educationally oriented* (i.e., familiar with the principal components of education reform) in addition to having solid technical skills in school business.

Assessment

The fundamental objectives of educational testing in California schools are far from fulfilled. The dominant testing methods and formats not only fail to support the kind of teaching and learning that the state and national curriculum reform movement calls for, but actually retard that movement in California. Students, teachers, and parents are not getting the necessary information to gauge the educational system's progress, detect strengths and weaknesses, improve instruction, and judge overall effectiveness.

Redundancies and gaps exist in the system. State and local assessment systems are duplicative; yet whole parts of the school curriculum and major groups of students are left out of the assessment-improvement loop.

Eliminate multiple choice tests in favor of performance-based assessment:

The current approach to assessment of student achievement which relies on multiple choice student response must be abandoned because of its deleterious effect on the educational process. An assessment system which measures student achievement on performance-based measures is essential for driving the needed reform toward a thinking curriculum in which students are actively engaged and successful in achieving goals in and beyond high school.

The California Assessment Program (CAP) direct writing assessment is an example of the performance-based (or *authentic*) assessment needed to drive program improvements. It should be expanded to assess grades 3 and 6, in addition to grades 8 and 12 where direct writing assessment is now implemented. Direct assessment methods calling upon students to write, make oral presentations, and work with other students to solve real-world problems must also be implemented in mathematics, history, and science as soon as possible.

Develop and use powerful end-of-course examinations:

End-of-course examinations drive important improvements in high schools, and they should be provided for all major areas of study in the high school curriculum. The current Golden State Exams in algebra and geometry should be revised to incorporate performance-based measures. The new tests in U.S. history and economics now available on an optional, district-paid basis should be offered to all students on a statewide basis. California's higher education systems should be encouraged to accept end-of-course exams for admission and placement purposes in lieu of Scholastic Aptitude Test (SAT) results and examinations developed and used by those systems.

Develop multi-level standards in all performance areas:

The state should take the lead in developing standards anchored to real-world competencies. Schools' progress would be judged by the percent of students performing at each level. Advisory student performance levels should be set for key thresholds, such as 6th, 8th, and 12th grades. State and district three-year improvement targets should be set, and the *Worklink* system for sharing transcripts with employers should be implemented statewide.

Redesign the current state testing program:

A comprehensive testing system must be created in which core statewide student performance standards, along with local performance standards, are meaningfully assessed. In such a comprehensive system, responsibility should be shared. The state's role should be to develop and provide authentic assessment measures of the curriculum advocated by state frameworks; to provide scoring guides, training, and state-level reports; and to monitor administration and scoring. The district's role should be to administer, score, and provide for local reporting.

The goal of a comprehensive system is to allow local districts to assess each student's performance at each grade level in great breadth. The system should focus on the teaching-learning process. Data needed for other purposes, such as program evaluation or judging schools' effectiveness, should be derived from a student-centered assessment system. Such a system would yield data for any subject area and grade-level selected to serve as a checkpoint for broader state policy purposes.

Develop a business plan regarding the costs of assessment:

The plan would inform key decision-makers of the scope of work required to develop and implement assessment reforms and the cost of doing them well. Assessment reform has profound implications for teaching and learning, as well as testing. Significant resources and time will be required; so will funding for staff development, test development, and actual testing.

ENHANCING THE CURRICULUM

To replace the curricula in mathematics and science found in most American schools--curricula which promote under-achieving--our nation must do some courageous work over the next five years. The recommendations which follow are critical steps toward making the *thinking curriculum* a reality for every student.

Because of time limitations, the summit working group needed to concentrate on the important subject areas of mathematics and science, but the recommendations should be incorporated into a game plan that encompasses all curriculum areas. A vivid and balanced picture of what we want our students to accomplish should be at the heart of that game plan. This picture should include samples of student work across the curriculum and discussion of how the various curriculum frameworks work together. The game plan must also include a timeline and budget for implementing the recommendations.

Restructuring of the teaching profession, along with reforms of staff development, assessment, and instructional materials, will require public support and money. Support for the game plan and its budget can be rallied if the promise of results is realistic and compelling, and if accountability for the promised results is real.

The following recommendations are a first step in developing a coherent implementation strategy for improving the curriculum in mathematics, science, and all other subject areas.

Improve assessment and develop performance standards:

* Develop performance standards in mathematics and science so that we get a clear picture of what California students know and can do.

* Use the performance standards to set targets for students bound for community colleges and for four-year colleges and universities, as well as for students who will enter the work force upon high school graduation.

* Recognize that classroom teachers are the key to developing and implementing performance assessment.

* Inform the various constituencies about the critical need for and value of performance assessment.

* Attempt to influence the federal government to use performance assessment when making state-by-state comparisons of student achievement, so that all efforts will be coordinated rather than counterproductive.

* Communicate to the appropriate federal agencies that the required use of standardized tests to evaluate Chapter 1 programs is a burden on the system, and request that states be allowed more flexibility.

Enhance professional development:

* Allocate $25 million per subject area per year for professional development. Additional funds should be allocated to the site-based and resource consonia components of SB 1882.

* Make staff development time an official part of the teacher's work year, i.e., staff development must be considered *time on the job*.

* Extend the contracted school year for teachers, with compensation, by at least 15 days. This time is necessary for thinking, planning, and collaboration with other teachers.

* Give teachers time during the school day for continuous professional development, much as university professors now have.

* Certify professional development based on curriculum frameworks.

Develop better instructional materials:

* Ensure that students and teachers have instructional materials and library resources that reflect the best thinking in each discipline. This includes electronic and other nonprint media, as well as print materials in languages other than English and Spanish.

* Double, at least, the current annual appropriation to the Instructional Materials Fund (IMF) to meet its intended purposes fully, and deregulate the process by which districts make expenditures from the IMF.

* Hold publishers and producers accountable for meeting the curriculum standards.

* Establish a national confederacy of consumers to influence the development of instructional materials, and support efforts of state agencies and professional organizations to publish book reviews and consumer reports.

* Hold districts and teacher preparation programs accountable for instruction in using improved instructional materials.

* Ensure that science laboratories and equipment and that mathematics manipulatives are available to all K-12 students and teachers.

Restructure the teaching profession:

* Expand the teacher's role legislatively to include teaching other teachers as a peer coach or mentor, as well as in structured group inservice training activities.

* Allow teachers to play a broad role in assessment.

* Make teacher-to-teacher professional work ongoing and career-long.

* Provide teachers with staff development that (1) is curriculum-based, teacher-led, and tied to national and state reforms, as well as district priorities, (2) involves the best instructional materials, and (3) works with students.

* Allow teacher leaders time to lead. Leadership in curriculum reform will have to come from teacher leaders connected to national reform. All teachers will need time to do the work of replacing the curriculum and learning new instructional and assessment techniques.

Improving High School Transitions

High schools will be challenged in the 1990s to prepare increasing numbers of students for jobs and higher education. Meeting that challenge will require rigorous programs; higher standards and incentives that are clearly understood by everyone; and increased collaboration with business, industry, and institutions of higher learning.

Common Strategies

There are common strategies to ensure that *all* students have access to a strong core curriculum, regardless of their immediate or long-term goals.

Provide all students a rigorous, sophisticated core curriculum:

Regardless of background, a rigorous, sophisticated core curriculum must be provided to all students. The curriculum must support and encourage students to obtain necessary skills, knowledge, and values to maximize their options after graduation. Toward this end, we must:

* Foster total staff commitment to a culture of high expectations for all students through a flexible delivery system which meets the diverse needs of students while not reducing standards and curriculum intent, and which utilizes nontraditional strategies and interdisciplinary courses.

* Provide continuous staff development, emphasizing techniques and strategies that support diverse student needs, including up-to-date research methods and current literature about *what works*, and visits to exemplary programs.

* Incorporate technology into the curriculum to assist learning.

* Hold institutions accountable if certain groups of students are not achieving as well as others. Institutions must have meaningful measures of success. Student strengths must be assessed and identified earlier so that outcome indicators can be better selected. Performance standards must be implemented on which business, industry, and schools agree, and which both students and parents understand.

* Target underrepresented youth for program assistance to enable special support and teacher assistance, as well as placement in appropriate advanced classes which allow access to education and career destinations of their choice. Coordinated services must be provided by higher education institutions, community resources, and business and industry.

Emphasize parental involvement, broad-scale advisement programs, and expanded instructional time:

* Encourage early parental involvement to nurture students. Parents must be aware of standards and requirements necessary for entry into the job market or higher education.

* Increase parents' release time from work so that they can participate more fully in student activities, not just when problems occur.

* Provide broad-scale advisement programs that allow for student mentoring, role modeling, and counseling, as well as lower adult-student ratios to enable better counseling and tracking of individual student progress.

* Expand the school day, school year, and/or summer programs to equip students with the skills to compete in the work force or higher education.

Organize resources to help deliver a more sophisticated curriculum to more students:

* Encourage collaborative efforts between high schools and colleges, universities, and businesses to provide clear standards and approaches to organize basic programs and coherent services for all students. The education and business communities must agree on standards for apprenticeships, hiring criteria, and criteria for advancement in jobs so that there are clear incentives for students to complete a rigorous high school program.

* Assist high school students to make the transition to a four-year college or university, community college, technical school, or job.

* Examine ways of teaching our diverse student population and develop specific strategies to help students obtain the standards and expectations necessary to succeed.

In addition to these common strategies, goals and implementing recommendations have been established which address specific student outcomes:

Four-Year Colleges and Universities

Increase the number of students who enroll in, and earn a bachelor's degree from a four-year college or university to 25% of those students who initially enter high school:

With this ambitious goal, strategies must be adopted by high schools to ensure that ALL students, especially underrepresented minority youth, receive the necessary preparation and develop the skills to enable collegiate-level success.

* Ensure that higher education works more closely with high schools to expand the ability of underrepresented minority and average students to make a successful transition to college. Once students are enrolled, both systems must work together to follow up and ensure students' success in college.

* Expand programs successful in identifying and assisting underrepresented students, especially minorities. These programs have distinct strategies, such as placement in advanced classes with support through counseling, tutoring, and mentoring. Examples in California are AVID (Advancement Via Individual Determination) and Project 2000.

* Expand college scholarships and loans, especially for underrepresented minority students. Businesses and foundations should establish clearinghouses where resources for scholarships and loans are categorized so that information is more easily accessible to schools and students.

* Reexamine the role of the Scholastic Aptitude Test (SAT) in college admissions decisions to reduce its weight in those decisions. Until that occurs, programs that help prepare students to take the test must be expanded. The Tanner Projects are examples of programs that prepare students for taking the SAT and American College Test (ACT). Other useful tools are field trips to neighboring universities, special tutorials for students, evening workshops for parents, and monitoring of course selection.

Community Colleges

Increase the number of students who enroll in, and receive an associate degree from a community college to at least 25% of the students who initially enter high school:

Students must be clearly aware of the standards and course sequences needed to enter into community college academic or technical programs. School districts and community colleges must continue to expand the articulation process to ensure the success of students choosing this destination.

* Dispel the notion that high school does not count, and that the demands and rigor of study can be deferred until after high school. Community college must not be viewed as an extension of high school with no consequences for lax preparation.

* Provide experiences in the academic college environment for high school students. Successful practices include: offering college courses taught by college instructors on the high school campus, encouraging concurrent enrollment of students, enrolling students in summer college courses, and using high school and community college students as tutors and role models.

* Begin immediate statewide implementation of 2+2 and 2+2+2 programs with the goal of involving every high school and community college.

* Continue to expand Articulation Councils, bringing school districts and community college staffs together regularly. Representatives from business, the community, and parents should be encouraged to work with, and give input to, the councils. Tasks should include coordinating curriculum, assisting in planning course sequences, determining placement criteria, and devising methods to encourage student matriculation.

Transition to Work

Increase the number of students who transition to work with skills that enable success to 40% of the students who enter high school:

Students must gain increasingly sophisticated reading, writing, computing, thinking, and problem-solving skills to perform in more technical jobs.

* Reach agreement between educators and the business community on clear performance standards and incentives and put them into place for entry into the work force. These standards and incentives must be built into high school programs early on.

* Continue expanding collaborative efforts between academic and vocational teachers to integrate academics and vocational courses, and to build strong sequences of vocational offerings.

* Inform all students about incentives for successful graduates. Better paying jobs which students can fill upon graduation from high school are examples of meaningful incentives for academic, occupational, and personal preparation. In return, schools should *guarantee graduates*, re-educating or retraining them as necessary.

* Develop interdisciplinary study areas related to present and emerging careers and student interests, such as environmental studies, space age education, international studies, visual and performing arts, democratic-economic studies, and service and hospitality industries. Personalized career plans for students can also be integral in helping them understand available career opportunities.

At-Risk Students

Reduce the number of entering high school students who drop out from the current 22% to under 10%:

The dropout rate must be substantially reduced if our society and economy are to continue to be strong. This ambitious goal will require concerted efforts on the part of parents, teachers, other school personnel, and community members.

* Involve the entire school community in strategies to keep students from *slipping through the cracks*. Early identification is essential, followed by a strong support system which includes a close relationship with an adult. Low student/adult ratios are necessary to provide more individual attention. Flexible schedules must be instituted, including lengthening of the school day to accommodate working students or extending the school year to provide more time to learn. Other non-traditional classroom models should be incorporated as necessary to accommodate diverse learning styles, job needs, and family considerations.

* Implement programs, such as student study or support teams, to identify and serve students before they become at-risk high school students. These teams review and evaluate students who have the potential for becoming at-risk. Intervention strategies are established and individual plans are created over a specified time. Other strategies include evaluation of site effectiveness in intervening in at-risk behaviors, providing summer school for at-risk middle school students, and expansion of the Head Start program for preschoolers.

* Replicate effective models that are primarily experiential, but which integrate the core curriculum. To help teachers choose effective models, they must have opportunities to observe successful programs and teachers. In addition, research must be conducted; the findings concerning effective strategies must be disseminated; and higher levels of training on effective strategies must be provided.

Improving Adult Literacy

California is confronted by a serious gap between the skills and knowledge requirements of the future and the educational attainment of its population. Illiteracy knows no age, racial, social, or ethnic boundaries. Estimates indicate that shifts in the distribution of ethnic-racial groups could cause the proportion of the California population over age 14 who have literacy deficiencies to increase from an estimated 15.1% in 1987 to 18.6% in 2020. This would mean that some 4.2 million persons would have literacy deficiencies in the year 2000, increasing to 5.8 million by 2020.

The median years of education required for employment in 2000 will be 13.5, compared to 12.8 in 1984. Some 40% of employment in 1984 was found in lower skilled occupations; in 2020, only 27% of the jobs will fall in that category. Conversely, 41% of the jobs in 2000 will be in higher skilled occupations, compared to just 24% in 1984.

Decrease adult illiteracy by 5% per year for each of the next 10 years:

Meeting this goal will mean that more California adults are able to (1) compete in the work place; (2) understand and function in our democracy; and (3) enrich the quality of their lives. California encourages national adoption of its policy of providing opportunities for all adults to learn to compute, read, write, and speak English.

Forge a bold partnership among key providers and those who need literacy skills to meet future challenges:

To facilitate the partnership, the Superintendent of Public Instruction must coordinate, on a regional basis, all resources for adult literacy, including those of federal, state (i.e., Joint Advisory Policy Council on Vocational Education, State Board of Education, State Department of Education, and the California State Library), and local government agencies; business; labor; industry; community-based organizations; military; non-profit organizations; volunteers; and other literacy providers. The resources must be identified and redirected to meet priority needs of illiterate adults.

Through this partnership, the literacy delivery system should address implementation strategies to reduce illiteracy. Toward that end, every effort should be made to fund the recommendations in *Adult Education for the 21st Century: Strategic Plan to Meet California's Long-Term Adult Education Needs*, which embodies various crucial objectives.

Provide adequate resources to reduce adult illiteracy:

* Remove the adult education funding cap in current law.

* Encourage the infusion of private sector resources into the adult literacy system.

* Urge adequate funding to serve referred dropouts, immigrants, and others who seek adult literacy instruction.

* Determine the cost of moving an individual literacy recipient from 225 to 230 on the CASAS scale.[2]

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[2] Literacy is presumed to be a score of at least 225 on the Comprehensive Adult Student Assessment System (CASAS) scale or an equivalent level of achievement. CASAS assesses the life and work skills associated with functional literacy.

Expand and enhance literacy programs:

* Establish programs for currently unserved populations, recognizing cultural diversity.

* Support the transition of high school dropouts to adult literacy programs.

* Disseminate an up-to-date directory of adult literacy service providers with instructions for use.

* Identify the literacy competencies required by California adults, and develop plans to ensure that they are met.

* Promote adult literacy program quality through competency-based curriculum standards, instructional strategies which serve the diverse adult literacy populations, and criterion-referenced assessment. Literacy instruction for the future must encompass a hierarchical structure ranging from mere survival, to work place success, to quality of life competency in a moral society.

Expand the teaching force and enhance staff development:

* Recruit and employ teachers of adult literacy representative of the populations served.

* Provide staff development in instructional methodology and use of resource materials to meet the needs of a diverse illiterate population, which includes the learning disabled, the incarcerated, the non-English speaking, and the homeless. This staff development should emphasize instructional methodology appropriate for adults and should include technological innovations.

* Disseminate throughout the nation the English-as-a-Second-Language and Adult Basic Education Institute models for adoption as exemplary staff development programs.

Demand federal recognition and support:

The level of adult literacy in the United States is a national crisis. The issue deserves federal recognition and initiative, declaration of policy, and fiscal support.

Organizing More Effective Services for Children, Youth, and Families At Risk

Our efforts to organize more effective services must be guided by several key principles. Quality education can and must be available to all California children and youth. All students can learn in a committed, caring environment. Schools and communities must provide: clear expectations; a safe, orderly environment; and an emphasis on educational excellence, and sensitive, effective relationships which support students and their families. Schools, together with child and family support service agencies, are charged with meeting existing and emerging student needs. These services include education, physical and mental health, juvenile justice, child welfare, youth employment, recreation, child care and development, and providing for the needs of individuals with developmental disabilities.

At risk is a systemic condition. Community support service programs cannot intervene successfully with children, youth, and families at risk unless they develop collaborative partnerships with formal linkages to schools. Preventive services must be emphasized. Prevention, intervention, and recovery efforts are not specific to particular ages or levels of need. Long-term strategic plans for coordinated children's services, both state and national, must be developed immediately. We should:

Prevent students from becoming at-risk:

Schools and other service agencies should take an equal leadership role in coordinating health, nutrition, and family support services so that children at risk of failure begin school healthy and ready to learn. A comprehensive continuum of services, from early childhood development through career preparation services, must be available to all children, particularly those most at risk. For example:

* Prevent a variety of problems through prenatal care, in addition to parenting education for pregnant teens and early intervention for their infants.

* Enhance learning through preschool programs and before- and after-school child care, while supporting working families.

* Acknowledge explicitly the impacts of socioeconomic and other factors, including refugee status, ethnicity, and poverty at each school, and adress them in the delivery of preventive services.

Monitor student progress:

* Establish an explicit mechanism at each school for (1) identifying unmet student needs; (2) making appropriate referrals for school and community support services; (3) maintaining linkages between the home, school, and referral agencies; and (4) monitoring and supporting student progress.

* Use formal written *individual student plans* or less formal approaches, consistent with the needs of each student.

* Use teaming approaches, such as *student study teams*, in identifying needs and targeting services.

Involve parents and provide support for the home:

Schools and other agencies need an array of opportunities for family support and involvement to help students succeed. Sensitivity and respect for the ethnic, cultural, and linguistic diversity that

characterizes California's population must be considered in the design of outreach and delivery of parent programs.

Schools and other agencies serving children, youth, and families must expand their mission to include a family and child advocacy role, with the family and service agencies supporting each other toward common goals.

* Involve parents in policy development at the state and local levels in all agencies serving children, youth, and families.

* Identify and expand community programs that contribute to breaking the cycle of poverty and dependency, such as adult education and literacy, *Parents as Teachers*, and the *Quality Education Project*. These and other effective programs represent promising models and should be replicated.

Enhance community collaboration and delivery of comprehensive services:

* Develop local interagency *roundtable* collaboration models. These models should include city/county government, business/chambers of commerce, human service agencies, professional and religious organizations, community colleges, and four-year colleges. By their active support, communities can influence attendance, drug-free schools, parent involvement, and improved learning outcomes.

* Establish schools as the *hub* of services for students and families, providing the setting for assessing and responding to the *whole child's* needs and ensuring follow-through.

* Motivate agencies to participate in collaborative, interagency efforts through the most effective means: accountability indicators, mandates, rewards, penalties, or some combination thereof.

Increase accountability:

Local community and state agencies (both individually and jointly) should clearly identify target populations and delineate short- and long-term service goals to ensure that available resources are utilized most effectively. Progress toward these goals should be evaluated upon measurable child-, youth-, and family-focused outcomes and reported in annual scorecards.

Coordinate educational programs, especially categorical programs:

Categorical programs need to be aligned in support of each district's core curriculum, rather than serving as alternate or remedial curricula.

* Give more flexibility in designing and implementing categorical programs to schools and districts demonstrating high levels of student achievement with special needs students--or which have made themselves accountable to do so.

* Have all schools and districts coordinate their categorical programs (e.g., through AB 777, School-Based Coordinated Programs); increase the amount of one-on-one, high intensity tutoring of students; and provide training for certificated and classified staff to prevent students from becoming *system failures*.

Provide state level leadership:

Local collaboration efforts can be focused and strengthened by state-level leadership, without creating new layers of bureaucracy.

Organizing More Effective Services

* Develop high level political commitment among state agencies and elected officials to provide financial and other incentives for formal interagency collaboration, as well as clearinghouse, policy analysis, and service development functions.

* Develop and use compatible data files across services to monitor trends. This will aid long-range, preventive planning.

* Provide financial incentives--based on child-centered outcomes--for local collaborative efforts among schools and agencies.

* Give visibility and encouragement to model local programs throughout the state, as well as assistance to replicate them in other communities.

Restructuring to Improve Student Performance

Many of the key strategies of education reform interrelate with the topic of *restructuring to improve student performance*. Such strategies include: moving to a performance-based accountability system; developing comprehensive authentic assessments; enriching staff development opportunities focused on delivering a *thinking curriculum*; developing clear performance standards and incentives for students transitioning to work or community college; coordinating services for students at risk; and improving teacher preparation and recruitment, and enhancing professional opportunities for new and existing teachers.

Restructuring in a sense encompasses all of these strategies; yet it carries the discussion further by speaking to the need to reconsider governance structures, roles of people and organizations, rewards and incentives, and the way schools are organized to succeed in delivering a *thinking curriculum* to an increasingly diverse student population.

A significant achievement gap still exists between Hispanics and blacks on the one hand, and whites and Asians on the other. This achievement gap, the dramatically changing demographics in California, and the changing demands on our work force make further breakthroughs in improvement efforts imperative. Substantive and far reaching changes must be made in the educational system, while at the same time focusing on high standards and a rich curriculum for *all* students.

Restructuring can help to meet those goals that have been established. Restructuring broadly refers to state, district, and school efforts to revise governance and management procedures to link a clear vision with an unleashing of the creativity, energy and intelligence of school and district staff so that students thrive. Restructuring means moving from a *rule-based* accountability system to a *performance-based* system. Thus, restructuring effectively joins increased flexibility and support with increased accountability for results.

Below are recommendations for individuals and organizations at all levels in the education system to consider as they pursue efforts to restructure.

Focus restructuring efforts on students:

* Guide all restructuring efforts with a student-centered vision and the bottom line of improved student performance.

* Ensure that all students, regardless of sex, ethnicity, cultural background, or socioeconomic status, receive instruction in and keep pace with a rich, engaging core curriculum. Specific courses that are remedial in nature and tracking should be abandoned.

* Provide schools with flexibility to unleash the creativity and energy of the professionals at that site once student outcomes are agreed upon. Schools should be able to use their professional judgment and expertise in figuring out how to teach a rich curriculum to all the students.

* Locate as close to the student as possible the decision-making on how to organize and manage a school to achieve a clear vision of performance goals and quality curriculum.

Engage in long-range strategic planning:

* Engage schools and districts in long-range strategic planning which includes: (1) ongoing assessments of need, (2) establishing a clear vision, and (3) developing strategies and ownership of those strategies, including their implementation and evaluation.

Involve teachers in restructuring:

* Involve teachers in figuring out how to improve their school and to acquire additional skills, knowledge, and expertise. The state and federal governments need to provide additional funds to pay for a longer work year for teachers. This will allow time for planning and training in the skills necessary to adapt teaching styles and instructional methodologies to teach a rich, thinking curriculum successfully to diverse students.

Increase service orientation, flexibility, and accountability:

* Encourage school district, as well as regional, state, and federal offices, to become much more *service* oriented, collaborative, and supportive of creativity and risk-taking at individual sites to improve student outcomes and school performance. The agencies need to work, where possible, to relax rules and regulations which impede schools' efforts to organize to improve student performance.

* Increase accountability for outcomes and student learning as the quid pro quo for deregulation and increased flexibility. There should be accountability for every child, not just accountability for group averages.

Modify assessment practices:

* Redesign assessments to reflect the new thinking, problem-solving curriculum. More authentic assessment (such as writing essays, rather than completing multiple choice tests) is needed in the basic program, as well as in categorical programs such as Chapter 1.

Increase collaboration, involvement, and incentives:

* Sponsor initiatives among schools, districts, and private industry to educate parents on how to work with the school and their children to support their children's efforts to learn a rich curriculum. Steps include ensuring that their children are enrolled in challenging courses, providing a study area at home, and paying attention to progress in school.

* Encourage private businesses to support parental involvement by providing parental release time for school involvement activities.

* Develop rewards and incentives to keep the best teachers in the classroom and to attract high quality teachers and administrators to schools with large numbers of students at risk. Differentiated staffing, career ladders, opportunities for professional growth, opportunities for innovation, and paying for an extended school year should be explored.

* Encourage private businesses to establish an incentive system for districts and schools to restructure by amassing the human and financial resources that they are willing to contribute to schools and targeting those resources where serious restructuring to improve student performance is undertaken.

Improving Teacher Preparation and Recruitment

The success of educational reform in California is inextricably tied to the quality of the teachers, administrators, and other school staff. We need to:

* Recruit new teachers because of growing student enrollment and the increasing number of retiring teachers.

* Increase the number of minority educators in the teaching and administrative ranks.

* Assure that educators will be adequately prepared to teach a diverse student population and a more rigorous, *thinking* curriculum.

* Support first-year teachers to stem the tide of those who are leaving the profession during their initial years in the classroom.

* Eliminate teaching conditions which cause many competent, veteran teachers to leave the profession.

* Carefully plan and thoughtfully deliver professional development for existing teachers and administrators to maintain and improve their skills.

Expand teacher recruitment:

* Recruit minorities into the education profession at all levels (including teachers, administrators, staff development providers, and aides). Statewide targets for minority recruitment must be set, and the pool of recruits enlarged to include aides, parents, out-of-state teachers, and mid-career people from other fields.

* Develop alternate routes and revise regulations to promote entrance into the teaching profession of mid-career persons. These routes might include (1) *fast track* credential programs for persons with credentials from other states or experts in other professions; (2) *mini-credentials* for persons who wish to remain in other professions while teaching a K-12 course; and (3) *sabbaticals* for private sector professionals to allow them to teach for a year.

* Create incentives for teachers to enter and remain in the profession, such as making salaries competitive with other professions requiring a bachelor's degree; loan forgiveness; home subsidies in high-cost areas; and reduced UC/CSU fees for educators and/or their children.

Improve teacher preparation:

* View teacher preparation as a shared higher education/school district responsibility, with the higher education institutions' involvement continuing (but diminishing) after the preliminary credential, and the districts' involvement increasing. Field experiences should be provided at three levels: (1) early field experience for elementary, secondary, and undergraduate students to encourage them to think of teaching as a career (e.g., peer or cross-age tutoring); (2) internship during the teacher preparation program; and (3) supervised teaching during the induction period with support from on-site peers as well as from the college or university.

* Enhance the status of teacher preparation within the university by creating a *clinical professorship* that would reward higher education faculty for work in K-12 education in lieu of traditional research activities.

* Emphasize that teaching is a lifelong responsibility in teacher preparation and staff development courses. An *apprenticeship* period of up to three years as a condition of credentialing should be considered. During the apprenticeship, specific help would be provided in effective and social domains (e.g., how to work with parents, how to improve the school environment, and how to draw upon community resources to deal with problems of substance abuse and child abuse).

* Consider the lessons of a *business model approach* applied to teacher preparation, where K-12 is the consumer and higher education the service provider. Higher education institutions need more realistic information about their teacher preparation program graduates, so that (1) new teachers can be selected to fit job requirements and (2) appropriate support for new teachers can be designed.

* Establish a toll-free telephone number to provide information about the need for teachers throughout the state, as well as in specific geographic areas, curricular areas, and for special student populations.

Improve teacher induction, retention, and assessment:

* Create an organized, systematic, statewide process for support of new teachers and assessment of their competencies, including (1) an induction or *apprenticeship* period of up to three years; (2) mentoring; (3) reduced workload; (4) assessment; (5) an on-site support person; and (6) if possible, a team of support people or a team-teaching arrangement. Programs like the California New Teacher Project should be expanded.

* Set statewide targets for the retention of new teachers, overall and for underrepresented ethnic groups.

* Reach agreement on *what teachers need to know and be able to do*, and base teacher assessment upon this agreement. National efforts toward this end must be coordinated.

* Provide flexibility to encourage creative approaches, ideas, and teaching methods. Efforts to support and assess new teachers must not result in a thoroughly homogenized profession. The multicultural nature of California's student population demands a multi-dimensional educational environment.

Enhance professional development:

* Make teaching a full-time profession. The teacher work year must be increased by 10 to 20 professional days in addition to the current 180 instructional days. The additional days should be interspersed among the instructional days to provide time for professional development, planning, problem solving, and peer coaching.

* Give teachers opportunities to broaden their responsibilities, with appropriate pay and without permanently leaving the classroom. These opportunities might include (1) career ladders, (2) reduced work loads with time allowed for peer observation, and peer coaching or curriculum development, and (3) expansion of the mentor teacher program. Local districts should determine the appropriate teacher/administrator ratio (perhaps through collective bargaining), or *administrator* should be redefined so that more teachers can assume a wider variety of responsibilities.

* Restructure the current salary schedule. Advancements should be based on performance, rather than on the accumulation of units or years. Pay should increase as responsibility and competence increase. Teachers should be paid for participation in professional development activities when those activities occur.

* Design specific staff development for those persons involved in instructing or supervising potential and beginning teachers. This training would include staff development for principals on how they can support and evaluate new teachers, as well as for mentors or experienced teachers who will act as coaches of new teachers. Those involved in designing and delivering the staff development need recent K-12 school experience.

Improve administrator credentialing and training:

* Improve the quality of the current system for credentialing administrators, including increasing emphasis on curriculum and instructional leadership similar to the current California School Leadership Academy program, and provide opportunities for potential administrators to work as interns. The administrative credentialing process should be streamlined to be more attractive and less complicated.

* Provide all administrators and school board members ongoing professional development, especially to develop new skills required by restructuring and to meet the needs of diverse student populations.

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Superintendent
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Students At-Risk

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Restructuring

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Redwood City Elementary SD
Restructuring

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Cajon Valley Union Elementary SD
Teacher Preparation/Recruitment

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Accountability/Assessment

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LaDawn Law
Quality Education Project
Restructuring

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Teacher Preparation/Recruitment

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Children Now
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Students At-Risk

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Region C Administrative Offices
Los Angeles Unified SD
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Restructuring

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Alphabetical Listing of Participants

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